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BOOM! PAYMENTS, INC.

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

BOOM! PAYMENTS, INC.	Case No. 5:19-cv-00590
Plaintiff,	
vs.	**COMPLAINT FOR PATENT INFRINGEMENT**
STRIPE, INC.; SHOPIFY (USA) INC.; and SHOPIFY INC.	
Defendants.	**DEMAND FOR JURY TRIAL**

COMPLAINT

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1.   Plaintiff Boom! Payments, Inc. ("Boom") files this Complaint against Defendants Stripe, Inc. ("Stripe"); Shopify (USA) Inc.; and Shopify Inc. (the latter two collectively "Shopify"), and alleges as follows:

NATURE OF THE ACTION

2.   This is a civil action for infringement under the patent laws of the United States, 35 U.S.C. § 1, *et seq.*

3.   The United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,429,084 ("the '084 patent") on April 23, 2013. Boom is the legal owner of the '084 patent by assignment. A true and correct copy of the '084 patent is attached hereto as Exhibit A.

4.   The United States Patent and Trademark Office duly and legally issued U.S. Patent No. 9,235,857 ("the '857 patent") on January 12, 2016. Boom is the legal owner of the '857 patent by assignment. A true and correct copy of the '857 patent is attached hereto as Exhibit B.

5.   Stripe has infringed and continues to infringe one or more claims of each of the '084 patent and the '857 patent (collectively, the "Asserted Patents") at least by making, using, selling, and/or offering to sell its Stripe Checkout payment platform ("Accused Payment Processor Platform"). Shopify has infringed and continues to infringe one or more claims of each of the Asserted Patents by at least making, using, selling, and/or offering to sell e-commerce platforms incorporating the Shopify Pay accelerated checkout feature ("Accused e-Commerce Platform"). Boom seeks, among other things, monetary damages and injunctive relief.

THE PARTIES

6.   Plaintiff Boom! Payments, Inc. is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 1338 Lida Lane, Pasadena, California.

7.   Defendant Stripe is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 510 Townsend Street, San Francisco, California. Stripe can be served through its registered agent, CT Corporation System, located at 818 West Seventh Street, Suite 930, Los Angeles, California.

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8.   Defendant Shopify (USA) Inc. is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 33 New Montgomery Street, Suite 750, San Francisco, California. Shopify (USA) Inc. can be served through its registered agent, Corporation Service Company, located at 2710 Gateway Oaks Drive, Suite 150N, Sacramento, California.

9.   Defendant Shopify Inc. is a corporation organized and existing under the laws of Canada with its principal place of business at 150 Elgin Street, 8th Floor, Ottawa, Ontario, Canada.

JURISDICTION AND VENUE

10.   This Court has subject matter jurisdiction over Boom's claims for patent infringement pursuant to 28 U.S.C. §§ 1331 and 1338(a).

11.   Stripe is subject to this Court's personal jurisdiction because Stripe has its primary place of business within this District. This Court also has personal jurisdiction over Stripe because Stripe has committed and induced acts of patent infringement and has regularly and systematically conducted and solicited business in this District by and through at least its sales and offers for sale of Stripe products and services, and other contractual arrangements with Stripe customers and third parties using such Stripe products and services located and/or doing business in this District.

12.   Shopify (USA) Inc. is subject to this Court's personal jurisdiction because it has its primary place of business within this District. This Court also has personal jurisdiction over Shopify (USA) Inc. because it has committed and induced acts of patent infringement and has regularly and systematically conducted and solicited business in this District by and through at least its sales and offers for sale of Shopify products and services, and other contractual arrangements with Shopify customers and third parties using such Shopify products and services located and/or doing business in this District.

13.   Shopify Inc. is subject to this Court's personal jurisdiction because it has committed and induced acts of patent infringement and has regularly and systematically conducted and solicited business in this District by and through at least its sales and offers for sale of Shopify products and services, and other contractual arrangements with Shopify customers and third parties using such Shopify products and services located and/or doing business in this District.

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14.   Venue is proper in this District under 28 U.S.C. §§ 1391(b) and 1400(b) because both Stripe and Shopify (USA) Inc. have regular and established places of business in this District, and both Stripe and Shopify have committed acts of infringement in this District.

INTRADISTRICT ASSIGNMENT

15.   This action for patent infringement is assigned on a district-wide basis under Civil L.R. 3-2(c).

FACTUAL ALLEGATIONS

A.   Boom and Its Innovative Internet-Based Payment Processor

16.   Boom was founded by the named inventor of the Asserted Patents, Erik T. Bogaard, who currently serves as its Chief Executive Officer. Boom's business is focused on commercializing the innovative internet-based payment processor embodiments claimed in the Asserted Patents.

17.   Boom traces its roots back to another company that Mr. Bogaard started as a sophomore at Boston University: myBookCrate.com. myBookCrate.com was an online marketplace for textbook transactions on college campuses that used some of the technology described in the Asserted Patents to provide the payment and authentication process. At its peak, myBookCrate.com was available at colleges and universities nationwide, and included a catalog of over eight million titles. In 2012, *Forbes* magazine named myBookCrate.com as a semi-finalist on Forbes magazine's list of America's Most Promising Companies. https://dailyfreepress.com/blog/2012/12/03/student-start-up-mybookcrate-gets-national-recognition/.

18.   The spark for Mr. Bogaard was "the struggle many college students deal with every year": affording the cost of higher education, including the high cost of frequently updated textbooks coupled with their low resale value at campus bookstores. https://www.usatoday.com/story/college/2012/05/20/the-hundred-billion-dollar-question/37393295/. But rather than accept the status quo, Mr. Bogaard worked "to find his own way to reduce the cost of textbooks for students." *Id.* That effort involved self-taught computer programming; developing the systems for directly connecting buyers and sellers, processing and

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authorizing payments, and confirming transactions; and an initial website for myBookCrate.com that was self-designed, self-programmed, and launched by Mr. Bogaard. *Id.* The result, according to *USA Today*: a website that was "among the first of its kind." *Id.*

19.   The buzz was immediate. myBookCrate.com charged "the lowest [commission rate] of any online textbook marketplace," charging only 10% compared to Amazon's 18%. https://medium.com/@NickOstiller/the-renegade-revolutionaries-in-the-college-textbook-game-da69159ae275. The website was lauded for "allow[ing] students who wish to sell a book to name their own price and list it on the site," "suggest[ing] [a] market price for any book it recognizes," "immediately notif[ying] [sellers] via email or text message," and providing "[a] series of confirmation steps, along with a unique messaging system that protects users' privacy by not disclosing any personal information ...." *Id.*

20.   The payment processing aspects of myBookCrate.com were well received. Users lauded the website's ease of use, convenience, stored credit card account information, and ability to confirm transactions through mobile phones. *See, e.g.*, https://dailyfreepress.com/blog/2012/12/03/student-start-up-mybookcrate-gets-national-recognition/. NBC's San Diego affiliate interviewed Mr. Bogaard about MyBookCrate.com, noting how the website handles payments so that students do not have to pay each other directly. *See* https://www.nbclosangeles.com/news/california/Beating-the-Text-Book-Game-200533921.html. ABC's Los Angeles affiliate covered the use of myBookCrate.com on the University of Southern California's campus. *See* https://abc7.com/archive/9075677. And reports acknowledged that Mr. Bogaard had already "secured two patents for myBookCrate's payment system." *Id.*

21.   From his experience with myBookCrate.com, Mr. Bogaard decided to focus on developing and commercializing his Internet-based payment processing inventions to improve the payment flow on e-commerce websites by making the payment process both smoother and more secure.

22.   Mr. Bogaard realized he had invented an improvement to computer systems for Internet-based payment processing and authorization that solved problems unique to online

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1   transactions. He recognized, for instance, that many "online companies may not be in a position

2   to provide payment completion through their own websites." '084 patent at 18:40-41.[1] He also

3   recognized that other "online companies may prefer to operate through ... payment processors,"

4   but that those third party processors might "refuse to process payments ... unless and until [the

5   company] can provide confirmation that each online transaction for which [the company] demands

6   payment has occurred," and acceptable confirmation might not be available to many online

7   companies. *Id.* at 18:41-44, 18:52-55, 19:7-12. He also recognized that buyers might not want to

8   share their personal information or credit card information with third-party online sellers. *Id.* at

9   2:50-51. And he recognized the need for more-robust protections of buyer account information

10   online, greater assurances of payment authorization and consummation for online sellers, and

11   greater reliability of transaction confirmations prior to online payments for payment processors.

12   *Id.* at 2:33-3:17, 22:51-23:60. Mr. Bogaard realized that solving these problems would encourage

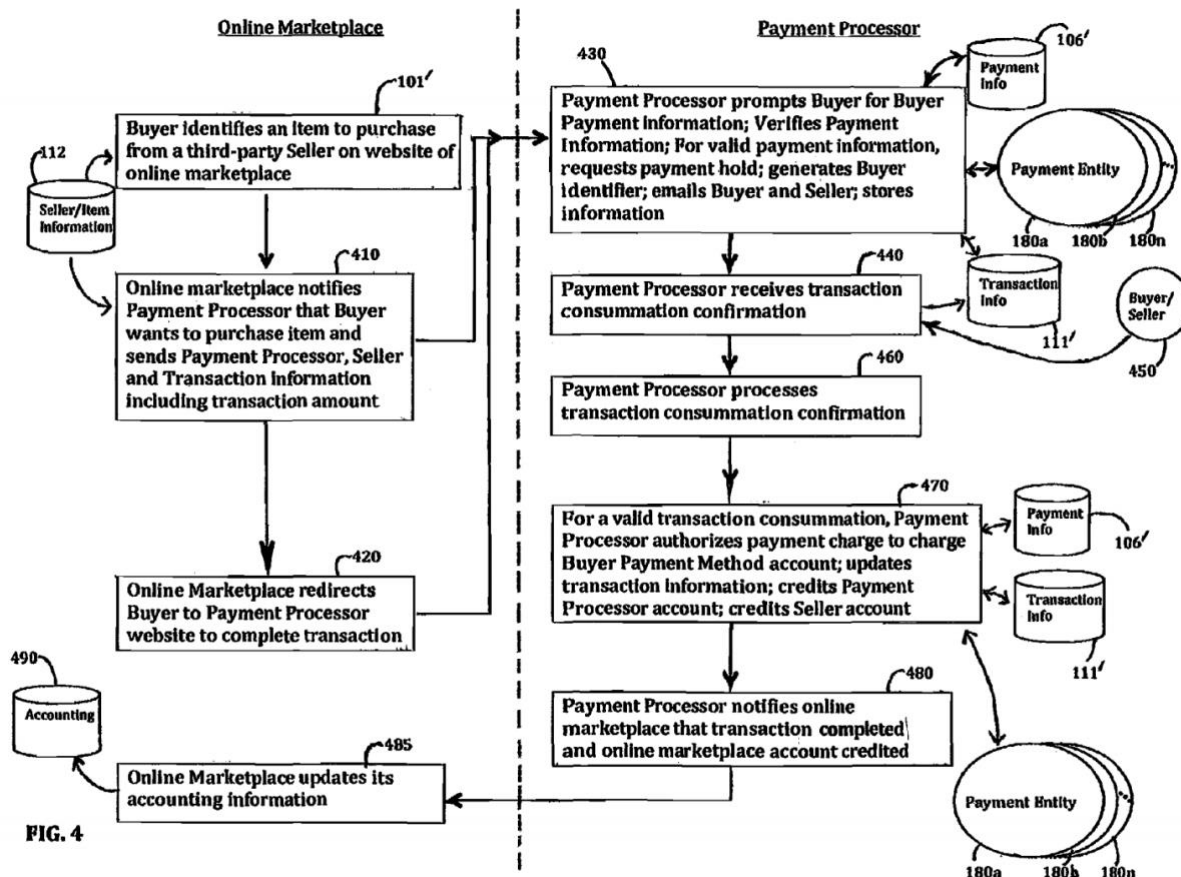13   wider adoption of online payments and transactions, and ultimately fewer chargebacks.

14   23.   Mr. Bogaard's inventions, embodied in the Asserted Patents, presented

15   particularized solutions to problems unique to online transactions that were rooted in computer

16   technology, computer networks, and the Internet. In particular, the Asserted Patents disclose

17   specific improvements to computer systems for processing and authenticating Internet-based

18   transactions. Rather than claim all methods or systems for processing or authenticating an Internet-

19   based transaction, for instance, the claims are instead specifically directed to the use of a

20   "transaction specific buyer acceptance identifier" and a "transaction consummation completion

21   identifier," both of which are generated under specifically defined conditions, and which are

22   stored, used, or related to other identifiers in particularized combinations as set out in the claims

23   of the Asserted Patents.

24   24.   Claim 7 of the '084 patent, for example, describes a particularized solution to at

25   least some of the difficulties faced by Internet-based transactions. It specifically describes a server

26   of an Internet-based computer system for confirming that a sale transaction has been consummated

27   _____

28   [1] For ease of reference, citations to the patent specification throughout the Complaint will be
     to that of the '084 patent.

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that is programmed to (i) generate a transaction-specific buyer acceptance identifier in response to a buyer's request to purchase an item for sale through an Internet-based computer system by a seller recognized by the system; (ii) store in memory information about a relationship between the transaction-specific buyer acceptance identifier, buyer identification, and seller identification; (iii) communicate the transaction-specific buyer acceptance identifier to the buyer; (iv) receive from the seller a transaction consummation completion identifier, a seller identifier, and transaction information, including an item identifier or transaction amount; (v) determine whether the transaction consummation completion identifier includes the transaction-specific buyer acceptance identifier and the seller identifier includes a recognized identifier; and (vi) if those determinations are made, charging an account associated with the buyer for the transaction amount or the amount associated with the item identifier.

25. Figure 4 from the specifications of the Asserted Patents further demonstrates an exemplary embodiment of the patented payment processor and illustrates how the inventions are inextricably tied to Internet-based computer systems for confirming that a sale transaction has been consummated:

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Online Marketplace

112 — Seller/Item Information

101' — Buyer identifies an item to purchase from a third-party Seller on website of online marketplace

410 — Online marketplace notifies Payment Processor that Buyer wants to purchase item and sends Payment Processor, Seller and Transaction Information including transaction amount

420 — Online Marketplace redirects Buyer to Payment Processor website to complete transaction

490 — Accounting

485 — Online Marketplace updates its accounting information

FIG. 4

Payment Processor

430 — Payment Processor prompts Buyer for Buyer Payment Information; Verifies Payment Information; For valid payment information, requests payment hold; generates Buyer Identifier; emails Buyer and Seller; stores information

106' — Payment Info

Payment Entity — 180a 180b 180n

440 — Payment Processor receives transaction consummation confirmation

Transaction Info — 111'

Buyer/Seller — 450

460 — Payment Processor processes transaction consummation confirmation

470 — For a valid transaction consummation, Payment Processor authorizes payment charge to charge Buyer Payment Method account; updates transaction Information; credits Payment Processor account; credits Seller account

Payment Info — 106'

Transaction Info — 111'

480 — Payment Processor notifies online marketplace that transaction completed and online marketplace account credited

Payment Entity — 180a 180b 180n

In this embodiment, an Online Marketplace[2] has implemented Boom's patented technology to facilitate the payment flow on its website. *See id.* at 21:54-22:50. More specifically, in this exemplary embodiment, a Buyer shopping on the website of an Online Marketplace decides to purchase an item from a third-party (**101'**). *See id.* at 21:54-60. In response to the Buyer's request to purchase that item, the Online Marketplace electronically notifies the Payment Processor and provides necessary information about the transaction (**410**), and it is the Payment Processor (not the Online Marketplace) that handles the Buyer's payment information (**430**), including verification of the information with the appropriate Payment Entity **180** (*i.e.*, the institution associated with the Buyer's credit card). *See id.* at 21:61-22:27. Also in response to the Buyer's request, the Payment Processor automatically generates a Buyer (or Seller) identifier and electronically provides that identifier to the Buyer (or Seller) (**430**). The Buyer (or Seller) can

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[2] An Online Marketplace provides items for sale from a number of third-party sellers. *See* '084 patent at 1:37-39.

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input the identifier into a computer or mobile device, such that the Payment Processor electronically receives confirmation that the transaction has been consummated (**440**). The Payment Processor then electronically processes the transaction (**460**), including charging and/or crediting the appropriate accounts (**470**) and providing notification that the transaction is complete (**480**). *See id.* at 22:28-48.

26. The specific limitations, alone and in combination, of the claims of the Asserted Patents represent an improvement to computer systems for confirming that an Internet-based sale transaction has been consummated. In many embodiments, the claimed inventions are directed to particularized systems for confirming an online transaction that is not dependent on a buyer providing her sensitive credit card account information to an online seller, with whom the buyer may have no familiarity, or a seller having to process and authorize an online payment, when the seller may not have the means or willingness to do so. *See id.* at 2:62-3:4, 18:40-51, 19:7-12.

27. Boom's patented technology offers several specific improvements over prior art Internet-based payment authentication technologies. The unconventional features offer an innovative solution to the Internet-centric problem of increasing online payment security without making the payment flow burdensome on either the buyer or the seller. It removes the need for any static buyer payment information, such as credit card numbers, to be relied upon (*i.e.*, to reside on a seller's servers) when a buyer and online retailer are transacting over the Internet. Instead, such sensitive information can reside solely with a payment processing entity, protecting the buyer's information. As a further security measure, in response to a buyer's request to purchase an item sold on an e-commerce website, Boom's technology automatically generates and electronically sends to the buyer in real time a "transaction-specific buyer acceptable identifier" that a buyer then inputs into a computer or mobile device in order to (1) authenticate himself in the context of a particular transaction and (2) authorize payment for that particular transaction. By removing the need to rely upon static payment identifiers, as has been conventionally done, and having the buyer input a "transaction-specific buyer acceptable identifier" automatically sent to the buyer during the transaction process, the patented invention significantly lowers the risk of both fraudulent online transactions as well as unauthorized access to the buyer's credit card or

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account details. The patented invention's specific way of authenticating Internet transactions further serves to protect companies in the online payment processing business, as the payment processor has a way to confirm the buyer has authorized the transaction with the seller. *See id.* at 3:2-9.

28.   The particularized manner in which the "transaction specific buyer acceptance identifier" and "transaction consummation completion identifier" of the claims of the Asserted Patents are generated, stored, used, and related to other identifiers was not well-understood, routine, or conventional at the time of Mr. Bogaard's inventions.

29.   Moreover, as the United States Patent and Trademark Office made clear in its September 8, 2015 Notice of Allowance for the '857 patent, the claims "fundamentally require mobile computer devices and a server computer device, and do not merely recite computers carrying out business practices that could plausibly be performed by human beings without computers, or making merely trivial use of computers and communications technology."

30.   The commercial applicability of Boom's technology has only grown since their inception. For example, Boom has partnered with an e-commerce platform provider, and hundreds of merchants have used Boom's payment authentication technology on their websites. Customers who purchased items from a merchant using Boom's technology praised the ease of completing the checkout process on Twitter, making comments such as, "I checked out in literally two minutes. Best thing ever. Nice work," and "it was great easy checkout … you are [a] genius never ever placed [an] order that fast." Boom's platform was also recently used to authenticate payments for merchandise sold in advance to attendees of a large music festival in Los Angeles. And, as discussed in further detail below, Stripe and Shopify have processed millions of Internet-based transactions using Boom's technology.

B.   Boom's CEO Demonstrates Boom's Technology to Stripe

31.   Stripe is no stranger to Boom. Boom discussed its patented technology with Stripe representatives in 2013, with the goal of partnering with Stripe to develop a payment authentication product that Stripe could offer to its customers.

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32.   On the evening of May 22, 2013, Mr. Bogaard emailed Patrick Collison, the co-founder and CEO of Stripe, offering to discuss how Stripe could partner with him to use his technology with its merchants. In response to that email message, the next morning (May 23, 2013), Stripe employee Lachy Groom emailed Mr. Bogaard indicating that Stripe would like to learn more about his technology. On information and belief, Mr. Groom is currently the Head of Stripe Issuing, which is an end-to-end platform for creating, distributing, and managing physical and virtual payment cards; he previously was a product manager responsible for Stripe's core payments products, including Stripe Checkout (*i.e.*, the Accused Payment Processor Platform). On May 24, 2013, Mr. Groom and Mr. Bogaard discussed a potential partnership by phone, in particular the possibility of working together to revolutionize the electronic and mobile payments industry using Boom's patented technology. Shortly after that call, on the same day, Mr. Groom connected Mr. Bogaard with another Stripe employee, Avi Bryant, via email, so that Mr. Bryant could also learn about Mr. Bogaard's technology. On information and belief, Mr. Bryant was at that time and is currently an Engineering Manager at Stripe.

33.   On May 28, 2013, Mr. Bogaard communicated with Mr. Bryant regarding Boom's patented technology. That morning, at or around 9:18 a.m., Mr. Bogaard and Mr. Bryant attempted to have a video conference via Skype, but were unable to connect.

34.   At or around 9:19 a.m., Mr. Bryant messaged Mr. Bogaard that "maybe [they] can try again later today" and "that [he] would love to hear about the real-world experience [Mr. Bogaard has] had with this payment flow." At or around 9:21 a.m., Mr. Bogaard responded, describing the favorable feedback he received when using the patented technology in connection with his myBookCrate.com (mBC) business, noting in particular how users appreciated the simplicity of the payment flow. He further explained that Boom has "pull[ed] the core technology from the mB[C] platform and beg[a]n building it out so we can provide it to all online merchants to help them become mobile ready immediately."

35.   On June 7, 2013, Mr. Bogaard emailed Mr. Bryant a link to Boom's webpage, specifically pointing Mr. Bryant to its application programming interface (API) documentation page, and emphasizing that Boom was "still very much in stealth" and was not widely distributing

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this information. At that time, Boom's API documentation page and its "Terms" page indicated

its technology was subject to patent protection, and specifically provided notice of the '084 patent.

See https://web.archive.org/web/20130715205949/http://boompayments.com:80/documentation;

https://web.archive.org/web/20130715210009/http://boompayments.com:80/terms.   Boom's

webpage also included a demonstration of its technology based on the myBookCrate.com

implementation, which used a PIN sent by text message for payment authentication. *See*

https://web.archive.org/web/20130715210004/http://boompayments.com:80/online.

36.   Less than an hour later, Mr. Bryant responded to Mr. Bogaard's email, indicating

that Stripe has a "company policy not to review or evaluate third party patents" and that without a

more specific proposal, Stripe was unlikely to pursue anything with Boom.

C.   Approximately a Year Later, Stripe Releases its Checkout Product Employing Boom's Patented Technology

37.   Instead of working with Mr. Bogaard, Stripe simply copied his invention. Stripe

has gone ahead and marketed its own payment platform that employs Boom's innovative

technology.

38.   In particular, on March 5, 2014, Stripe announced that it was releasing its Checkout

product, *i.e.*, the Accused Payment Processor Platform:

> The first time a purchaser pays via Stripe Checkout on their phone, Stripe will ask the customer for their credit card info. Stripe will also ask if the customer prefers for Stripe to remember the information, and will require customers to input their phone number. A single-use SMS code will be sent to the user which they can input to complete the checkout. In all subsequent transactions using Stripe (even on different apps and sites using Checkout), the customer can input their email, and a code will be automatically sent via SMS to the phone number attached to the email. You input that code, and the customer can checkout without having to re-enter their card information across sites and merchants.

https://techcrunch.com/2014/03/05/stripe-debuts-a-new-checkout-experience-with-one-click-

payments-for-mobile-and-web/.

39.   Stripe has a video on its website demonstrating the Checkout product at

https://stripe.com/us/payments/checkout. In the example in the video, a purchaser inputs his email

address (ben@stripe.com) and credit card information when making a purchase on the Dribbble

social media network; he also opts to have Stripe store his payment information for future

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purchases by ensuring the "Remember me" box is checked and providing his mobile phone number:
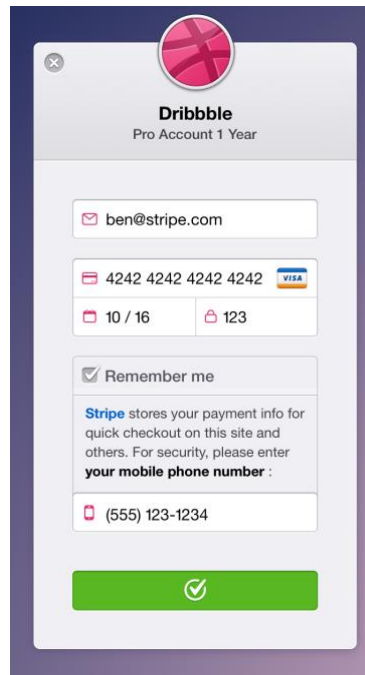
40.   At a later time, the same individual (ben@stripe.com) decides to make a purchase from a different online store that uses Stripe Checkout, the online video game storefront Humble Bundle. After he enters his email address into the Stripe Checkout payment flow on Humble Bundle's mobile website, a "Stripe verification code" is automatically texted to his mobile phone (top of first image below). To complete his purchase, he must then enter that verification code (second image below) before he is given the option to complete the transaction by clicking on the blue "Pay $25.00" button (third image below). Stripe Checkout then confirms that his purchase has been made (fourth image below).

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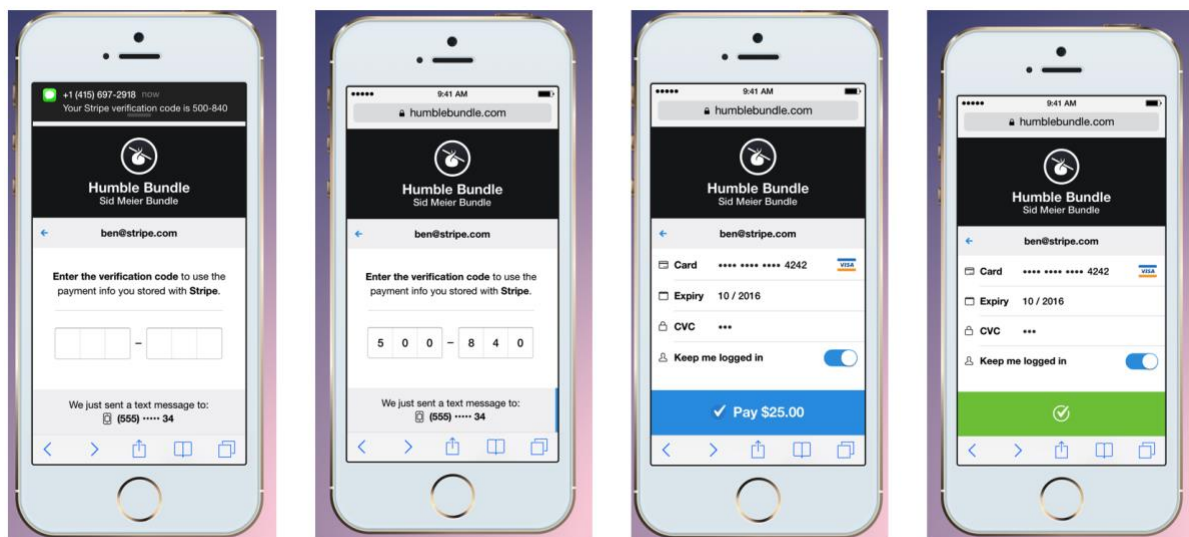
In this transaction, the user need only enter the verification code texted to him; he need not re-enter his credit card information.

41.   Stripe has received funding from various investors, and in 2014, was valued at $1.75 billion. https://techcrunch.com/2014/03/05/stripe-debuts-a-new-checkout-experience-with-one-click-payments-for-mobile-and-web/.   As of September 26, 2018, Stripe had raised $245 million in funding, its valuation had jumped to $20 billion, and it purportedly had millions of customers. https://techcrunch.com/2018/09/26/stripe-is-now-valued-at-20b-after-raising-another-245m-led-by-tiger-global/.   And on January 30, 2019, Stripe reported that it raised another $100 million   in   funding   and   that   its   valuation   had   jumped   to $22.5   billion. https://www.cnbc.com/2019/01/30/stripe-raises-100-million-from-tiger-global-at-22point5-billion-valuation.html.

D.   Shopify's Accused e-Commerce Platform Integrates Stripe's Accused Payment Processor Platform

42.   Shopify offers online retailers a customizable e-commerce platform they can use to set up an online storefront and to engage in online transactions with their customers. Shopify offers its online retailer customers an integrated payment solution on its e-commerce platform called Shopify Payments. https://www.shopify.com/press/releases/17847220-shopify-launches-shopify-payments. Shopify has retail locations "for current and aspiring business owners seeking to learn, experiment, and build with Shopify." *See, e.g.*, https://www.shopify.com/local/los-
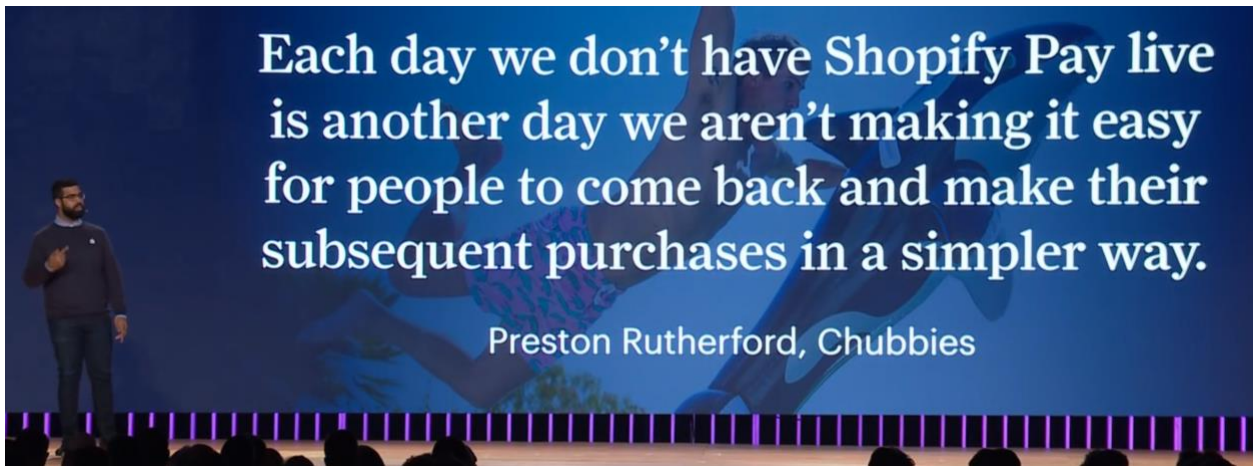
angeles. At its Los Angeles location, among other things, Shopify offers classes and one-on-one appointments with a "Shopify Guru" for those individuals and businesses interested in learning more about the functionality and features of the Accused e-Commerce Platform. *Id.*

43.   On April 20, 2017, Shopify announced its new accelerated checkout feature, Shopify Pay. https://www.shopify.com/blog/accelerate-checkout-with-shopify-pay. Shopify Pay allows online shoppers to "check out in seconds by entering a 6-digit verification code sent directly to their phone. They'll no longer need to spend time typing in their shipping and payment details anytime they want to buy from you, or any other store powered by Shopify." *Id.*; *see also* https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay ("Shopify Pay is an accelerated checkout that lets customers save their credit card and their shipping and billing information so they can complete their transaction faster the next time they are directed to the Shopify checkout.").

44.   On the same day as the above-cited April 20, 2017 press release, at Shopify's partner and developer conference Shopify Unite, Shopify's then-Vice President of Product, Santish Kanwar, explained that Shopify's "ultimate goal is for nobody to fill out a checkout form if they don't have to." https://www.shopify.com/blog/everything-we-announced-at-unite-2017. He then proceeded to announce Shopify Pay, characterizing it as "an entirely new kind of accelerated checkout" and a "game changer": "Shopify Pay is going to absolutely change how consumers and merchants think about checkout." *Id.* Mr. Kanwar demonstrated how Shopify Pay uses texted verification codes to "reduce[] checkout from sixteen fields down to two":

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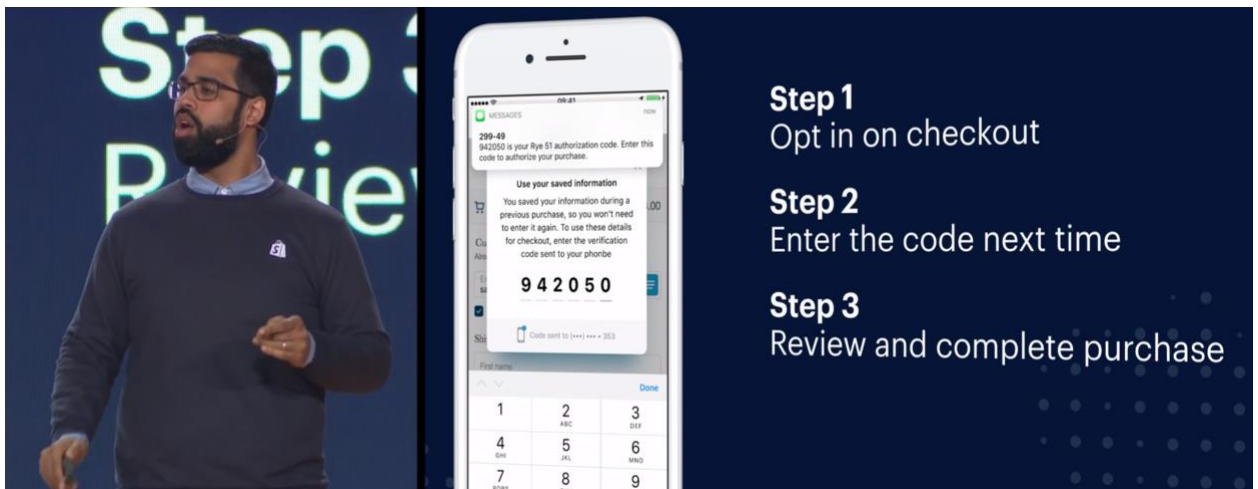
1   *See id.* Mr. Kanwar also described the positive experiences merchants had testing Shopify Pay,

2   including showing the following quote from Preston Rutherford, the founder of Chubbies, an

3   online clothing brand offering men's shorts and swim trunks:

Each day we don't have Shopify Pay live is another day we aren't making it easy for people to come back and make their subsequent purchases in a simpler way.

Preston Rutherford, Chubbies

12   *Id.* "The potential for Shopify Pay is enormous at changing how the checkout experience works

13   and the conversion rates that we expect." *Id.* Mr. Kanwar emphasized that Shopify Pay is "fast,"

14   "easy," "secure, and it is going to make Shopify better for every existing and every new merchant

15   that joins." *Id.*

16   45.   In the weeks following Shopify's April 20, 2017 announcement, Shopify Pay was

17   made available to every online store using Shopify's payment solution, Shopify Payments. *See*

18   https://www.shopify.com/blog/accelerate-checkout-with-shopify-pay;

19   https://www.shopify.com/blog/everything-we-announced-at-unite-2017.   Shopify Payments is

20   one of the payment gateways available for merchants doing business in the United States.

21   https://www.shopify.com/payment-gateways/united-states. Shopify promotes Shopify Payments

22   as "the simplest way to accept payments online," and notes that it "comes fully integrated with [a

23   seller's] store."   https://help.shopify.com/en/manual/payments/shopify-payments.   A seller can

24   switch   to   Shopify   Payments   (and   thus   the   Shopify   Pay   feature)   at   any   time.

25   https://help.shopify.com/en/manual/payments/shopify-payments/setting-up-shopify-payments.

26   46.   On information and belief, at least as early as April 20, 2017, Shopify Pay was and

27   continues   to   be   powered   by   Stripe's   Accused   Payment   Processor   Platform.

28   https://www.shopify.com/stripe;   *see*   https://stripe.com/works-with-shopify;   *see   also*

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https://www.shopify.com/legal/terms-payments-us, paragraph 1 ("Stripe provides the payment services to you on behalf of Shopify.").

47.   Shopify outlines how the Shopify Pay features work on the website https://pay.shopify.com. When an online shopper who has previously used the Shopify Pay feature on the Accused e-Commerce Platform purchases an item on the same or another website employing Shopify Pay, that shopper's "checkout information is automatically filled with a simple click":
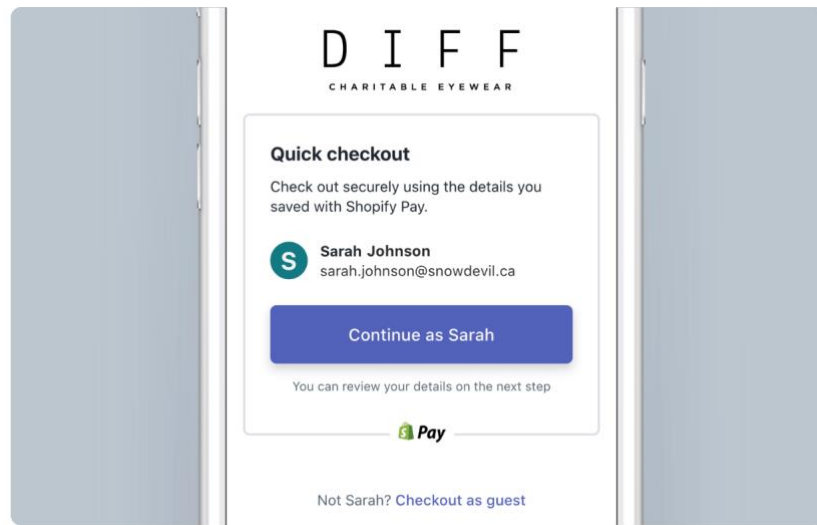
See id. The Accused e-Commerce Platform then "send[s] a secure code to [the shopper's] phone," which the shopper enters so her identity can be verified without having to re-enter her credit card information:

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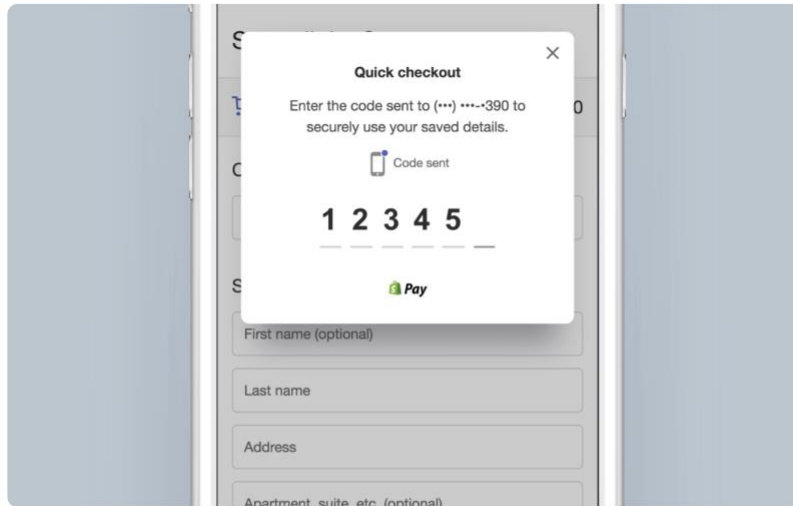
> *Sweet, I don't have to pull out my credit card every time.* "

See id.

48.   Stores using Shopify Pay have reportedly observed 40% faster checkout times, and   an   18%   higher   conversion   rate   for   returning   customers. https://www.shopify.com/blog/accelerate-checkout-with-shopify-pay.

<div align="center">

FIRST CAUSE OF ACTION

Infringement of Patent No. 8,429,084 by Stripe

</div>

49.   Boom incorporates the foregoing paragraphs as though fully set forth herein.
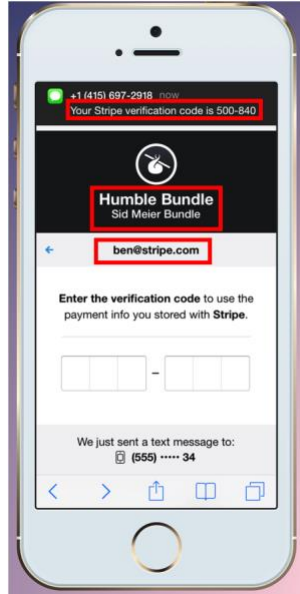
50.   Stripe has directly infringed, and continues to directly infringe, at least claim 7 of the '084 patent pursuant to 35 U.S.C. § 271, by making, using, selling, offering to sell, and/or importing within the United States, without authority, the Accused Payment Processor Platform.

51.   Set forth below (with claim language in italics) is an exemplary and non-limiting description of infringement of claim 7 of the '084 patent in connection with the Accused Payment Processor Platform.   Because claim 7 depends from independent claim 6, how the Accused Payment Processor Platform meets each limitation of both claims is described.   Boom reserves the right to modify this description, including, for example, on the basis of information about the Accused Payment Processor Platform that it obtains during discovery:

Claim 7 (depends from claim 6)

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6. An Internet-based computer system for confirming that a sale transaction has been consummated, said Internet-based computer system comprising at least one server computer programmed to: To the extent the preamble of claim 6 serves as a limitation on claim 7, the Accused Payment Processor Platform is an Internet-based computer system for confirming that a sale transaction has been consummated comprising at least one server computer. *See, e.g.*, https://stripe.com/docs/checkout ("Checkout securely accepts your customer's payment details and directly passes them to Stripe's servers.").

[6a] *in response to a buyer request by a buyer to be able to purchase at least one item featured for sale through the Internet-based computer system by a seller recognized by the Internet-based computer system, generate a transaction-specific buyer acceptance identifier;* When a buyer (*e.g.*, the buyer with the email address ben@stripe.com) attempts to purchase an item (*e.g.*, the "Sid Meier Bundle" of videogames) on a website (*e.g.*, Humble Bundle's website www.humblebundle.com) that uses the Accused Payment Processor Platform, Stripe generates a transaction-specific buyer acceptance identifier (*e.g.*, the "Stripe verification code"):

https://stripe.com/us/payments/checkout; *see also* https://techcrunch.com/2014/03/05/stripe-debuts-a-new-checkout-experience-with-one-click-payments-for-mobile-and-web/ ("A single use SMS code will be sent to the user .... [A] code will automatically be sent via SMS to the phone number attached to the email.").

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1   [6b] *store in a computer-accessible memory, information comprising a relationship*

2   *between the transaction-specific buyer acceptance identifier, an identification of the buyer, and*

3   *an identification of the seller; and* In order to be able to text the Stripe verification code to the

4   buyer, the Accused Payment Processor Platform necessarily stores that code (*e.g.*, the transaction-

5   specific buyer acceptance identifier) in computer-accessible memory. The Accused Payment

6   Processor Platform also stores the identification of the buyer, as a repeat buyer need not reinput

7   his mobile telephone number before the Stripe verification code is texted to him. *See, e.g.*,

8   https://stripe.com/docs/checkout ("Checkout securely accepts your customer's payment details

9   and directly passes them to Stripe's servers."). The Accused Payment Processor Platform further

10   stores the identification of the seller, as Stripe is able to confirm purchases on the seller's website.

11   In addition, Stripe's website indicates that a seller's publishable API key is used to identify the

12   seller's account with Stripe. https://stripe.com/docs/keys. Finally, the Accused Payment

13   Processor Platform also necessarily stores the relationship between the transaction-specific buyer

14   acceptance identifier, the identification of the buyer, and the identification of the seller, as Stripe

15   generates the transaction-specific buyer acceptance identifier and texts it to the buyer so that the

16   buyer can complete a purchase on the seller's website.

17   [6c] *communicate the transaction-specific buyer acceptance identifier to the buyer.* As

18   demonstrated above, the Accused Payment Processor Platform communicates the transaction-

19   specific buyer acceptance identifier to the buyer via text message.

20   *7. The Internet-based computer system of claim 6 said at least one server computer further*

21   *programmed to:* To the extent the preamble of claim 7 is limitation, the Accused Payment

22   Processor Platform is an Internet-based computer system comprising at least one server computer.

23   *See, e.g.*, https://stripe.com/docs/checkout ("Checkout securely accepts your customer's payment

24   details and directly passes them to Stripe's servers.").

25   *[7a] receive from a seller a communication of a transaction consummation completion*

26   *identifier, a seller identification, and transaction information comprising: an item identifier, or a*

27   *transaction amount;* The Accused Payment Processor Platform necessarily receives from the

28   seller a communication of a transaction consummation completion identifier, a seller

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COMPLAINT

identification, and transaction information comprising an identifier for the item(s) being sold and the transaction amount, as that information is needed for the Accused Payment Processor Platform to process and authenticate transactions between a buyer and a seller on the seller's website. The transaction consummation completion identifier is an identifier that the seller sends to Stripe, which may comprise information such as the code entered by the buyer, some other information about the transaction, and/or the token Stripe provides to the seller that is representative of, *inter alia*, the buyer's payment information. *See* https://stripe.com/docs/quickstart ("Accepting a card payment using Stripe is a two-step process, with a client-side and a server-side action: From [a seller's] website running in the customer's browser, Stripe securely collects [the] customer's payment information and returns a representative token. This, along with any other form data, is then submitted by the browser to [the seller's] server. Using the token, [the seller's] server-side code makes an API request [to Stripe's servers] to create a charge and complete the payment. Tokenization ensures that no sensitive card data ever needs to touch [the seller's] server, so [the seller's] integration can operate in a PCI-compliant way. Card details are never fully revealed, although Stripe's Dashboard and API do provide limited information about the card (such as its last four digits, expiration date, and brand).").

[7b] *determine whether: the transaction consummation completion identifier comprises the transaction-specific buyer acceptance identifier, and the seller identification comprises an identification of a seller recognized by the Internet-based computer system; and* The Accused Payment Processor Platform, in order to process and authenticate a given transaction between a buyer and a seller on the seller's website, determines whether (1) the transaction consummation completion identifier it receives from the seller comprises the transaction-specific buyer acceptance identifier (*e.g.*, the Stripe verification code) and (2) it recognizes the seller identification it receives from the seller.

[7c] *for the communication wherein the transaction consummation completion identifier comprises the transaction-specific buyer acceptance identifier, and the seller identification comprises the identification of a seller recognized by the Internet-based computer system, charge an account associated with the buyer for an amount comprising: said transaction amount, or an*

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amount associated with said item identifier. If the Accused Payment Processor Platform determines that the identifiers match, it confirms that the buyer has authorized the particular transaction and charges the transaction amount to the buyer's account. For example, once the buyer inputs the Stripe verification code that was sent to him via text message and the Accused Payment Processor Platform confirms he input the correct code, only then is the buyer able to request his card be charged for the purchase amount (left image below). After he confirms the amount to be charged (by tapping on "Pay $25.00"), he receives confirmation that the transaction has been completed (the green checkmark in the right image below).
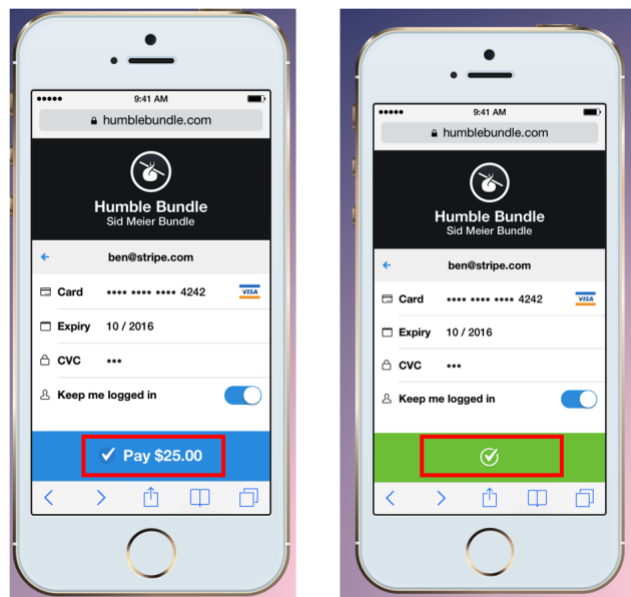
52.   As set forth in the Factual Allegations of this Complaint, Stripe's infringement of the '084 patent has been and continues to be wanton, deliberate, egregious, and willful. Prior to the introduction of the Accused Payment Processor Platform, Stripe employees engaged in technical and business discussions with Boom and Mr. Bogaard, were aware of the '084 patent, and expressed interest in learning more about the applications of Boom's technology. Rather than collaborating, however, Stripe copied the patented technology without permission from Boom or Mr. Bogaard, and launched its own competing product with either knowledge of its infringement or willful blindness of the same.

53.   For at least the foregoing and other reasons set forth herein, Boom is entitled to enhanced damages for Stripe's infringement of the '084 patent in accordance with 35 U.S.C. § 284.

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54.   As described in the Factual Allegations in this Complaint, Stripe has also had knowledge of or been willfully blind to its infringement of the '084 patent such that based on that knowledge or willful blindness, it has also indirectly infringed the '084 patent since at least May 22, 2013.

55.   Stripe has also had actual knowledge of Boom's rights in the '084 patent and details of Stripe's infringement of the '084 patent based on at least the filing of this Complaint and, based on that knowledge, is also indirectly infringing the '084 patent.

56.   Stripe makes, uses, imports, offers for sale, and/or sells the Accused Payment Processor Platform with knowledge of or willful blindness to the fact that its actions will induce Stripe's customers to infringe the '084 patent by implementing the Accused Payment Processor Platform on their e-commerce websites, and with specific intent to encourage such infringement.

57.   Stripe actively and knowingly induces its customers (such as Shopify, other e-commerce platform providers, and online merchants) to infringe the '084 patent by publishing information promoting the Accused Payment Processor Platform and its use in an infringing manner. For example, Stripe touts its Checkout product as "[t]he easiest payment flow on web and mobile," explains that it is embeddable within a customer's own website, and provides a video demonstrating its features and functionality. *See, e.g.*, https://stripe.com/us/payments/checkout. Stripe further publishes technical information concerning how integration of the Accused Payment Processor Platform on a customer website works. *See, e.g.*, https://stripe.com/docs/checkout.

58.   As the direct and proximate result of Stripe's conduct, Boom has suffered and, if Stripe's conduct is not stopped, will continue to suffer severe competitive harm, irreparable injury, and significant damages, in an amount to be proven at trial. Because Boom's remedy at law is inadequate, Boom seeks, in addition to damages, preliminary and permanent injunctive relief. Boom's business operates in a competitive market and will continue suffering irreparable harm absent injunctive relief.

59.   Boom is entitled to injunctive relief and damages of no less than a reasonable royalty in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.

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1   60.   Stripe's infringement of the '084 patent is exceptional and entitles Boom to

2   attorneys' fees and costs under 35 U.S.C. § 285.

3   **SECOND CAUSE OF ACTION**

4   **Infringement of Patent No. 8,429,084 by Shopify**

5   61.   Boom incorporates the foregoing paragraphs as though fully set forth herein.

6   62.   Shopify has directly infringed, and continues to directly infringe, at least claim 7 of

7   the '084 patent pursuant to 35 U.S.C. § 271, by making, using, selling, offering to sell, and/or

8   importing within the United States, without authority, the Accused e-Commerce Platform.

9   63.   Set forth below (with claim language in italics) is an exemplary and non-limiting

10 description of infringement of claim 7 of the '084 patent in connection with Shopify's Accused e-

11 Commerce Platform.   Because claim 7 depends from independent claim 6, how the Accused e-

12 Commerce Platform meets each limitation of both claims is described. In addition, on information

13 and belief, at least as early as April 20, 2017, the Shopify Pay feature of the Accused e-Commerce

14 Platform was and continues to be powered by Stripe's Accused Payment Processor Platform. *See*

15 *supra* ¶ 45. Boom therefore incorporates the mapping of claim 7 of the '084 patent in paragraph

16 51 by reference. Boom reserves the right to modify this description, including, for example, on

17 the basis of information about the Accused Payment Processor Platform and the Accused

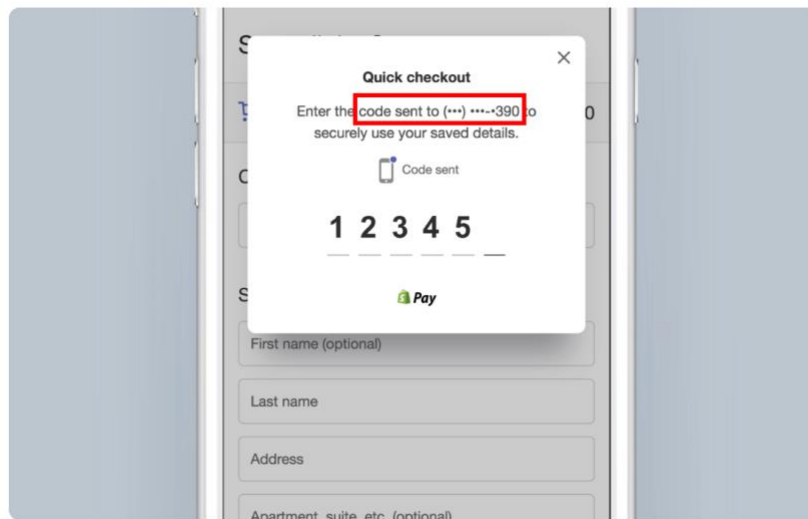18 e-Commerce Platform that it obtains during discovery:

19 Claim 7 (depends from claim 6)

20 *6. An Internet-based computer system for confirming that a sale transaction has been*

21 *consummated, said Internet-based computer system comprising at least one server computer*

22 *programmed to:* To the extent the preamble of claim 6 serves as a limitation on claim 7, the

23 Accused e-Commerce Platform is an Internet-based computer system for confirming that a sale

24 transaction has been consummated comprising at least one server computer. *See, e.g.*,

25 https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay   ("The

26 customer's shipping and billing information is securely stored on Shopify's PCI compliant servers

27 ....").

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[6a] *in response to a buyer request by a buyer to be able to purchase at least one item featured for sale through the Internet-based computer system by a seller recognized by the Internet-based computer system, generate a transaction-specific buyer acceptance identifier;* For example, after selecting an item or items for purchase, a buyer who has previously used the Shopify Pay feature on a seller's website employing the Accused e-Commerce Platform (*e.g.*, the buyer with the email address sarahjohnson@snowdevil.ca) can opt to use her saved payment information by clicking "Continue as Sarah":
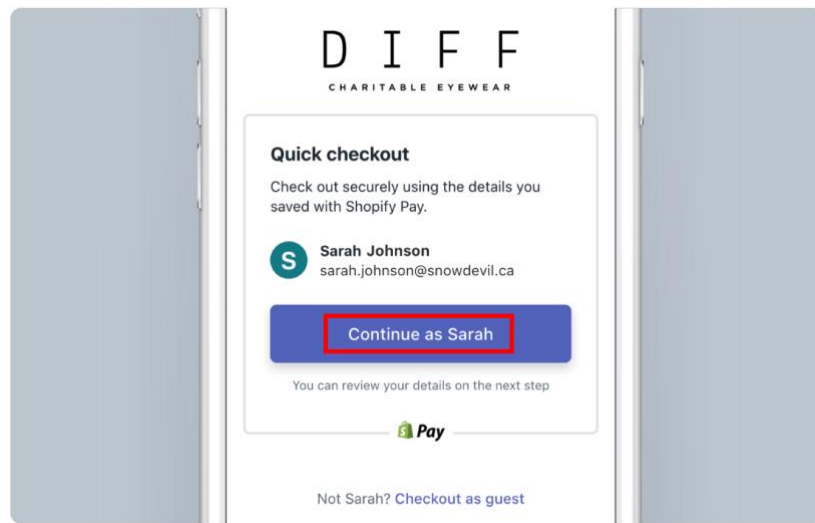
https://pay.shopify.com/. The buyer then is directed to the order review page, and once the buyer reviews the details of the purchase and clicks "Authorize purchase," the Accused e-Commerce Platform generates a transaction-specific buyer acceptance identifier (*e.g.*, the unique 6-digit code sent to the phone number ending in 390):

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Id.;   https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay; *see also* https://www.shopify.com/blog/accelerate-checkout-with-shopify-pay   ("After entering their shipping and payment details, shoppers can opt-in to have their information saved with Shopify Pay. Next time they check out at any store powered by Shopify, they'll simply type in their email address, followed by a verification code they receive via SMS.").

[6b] *store in a computer-accessible memory, information comprising a relationship between the transaction-specific buyer acceptance identifier, an identification of the buyer, and an identification of the seller; and*   In order to be able to text the Shopify Pay code to the buyer, the Accused e-Commerce Platform necessarily stores that code (*e.g*., the transaction-specific buyer acceptance identifier) in computer-accessible memory. The Accused e-Commerce Platform also stores the identification of the buyer, as a repeat buyer need not reinput her mobile telephone number   before   the   Shopify   Pay   code   is   texted   to   her.   *See* https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay   ("The customer's shipping and billing information is securely stored on Shopify's PCI compliant servers ...."). The Accused e-Commerce Platform further stores the identification of the seller, as the Accused e-Commerce Platform is able to confirm purchases on the seller's website. Finally, the Accused e-Commerce Platform also necessarily stores the relationship between the transaction-specific buyer acceptance identifier, the identification of the buyer, and the identification of the seller, as the Accused e-Commerce Platform generates the transaction-specific buyer acceptance identifier and texts it to the buyer so that the buyer can complete a purchase on the seller's website.

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[6c] *communicate the transaction-specific buyer acceptance identifier to the buyer.* As demonstrated above, the Accused e-Commerce Platform communicates the transaction-specific buyer acceptance identifier to the buyer via text message.

7. The Internet-based computer system of claim 6 said at least one server computer further programmed to: To the extent the preamble of claim 7 is limiting, the Accused e-Commerce Platform is an Internet-based computer system comprising at least one server computer. *See, e.g.*, https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay ("The customer's shipping and billing information is securely stored on Shopify's PCI compliant servers ....").

[7a] *receive from a seller a communication of a transaction consummation completion identifier, a seller identification, and transaction information comprising: an item identifier, or a transaction amount;* The Accused e-Commerce Platform necessarily receives from the seller a communication of a transaction consummation completion identifier, a seller identification, and transaction information comprising an identifier for the item(s) being sold and the transaction amount, as that information is needed for the Accused e-Commerce Platform to process and authenticate transactions between a buyer and a seller on the seller's website. The transaction consummation completion identifier is an identifier that the seller sends to Shopify, which may comprise information such as the code entered by the buyer, some other information about the transaction, and/or a representation of the buyer's personal details, which are stored on Shopify's servers. *See* https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay ("The customer's shipping and billing information is securely stored on Shopify's PCI compliant servers ....").

[7b] *determine whether: the transaction consummation completion identifier comprises the transaction-specific buyer acceptance identifier, and the seller identification comprises an identification of a seller recognized by the Internet-based computer system; and* The Accused e-Commerce Platform, in order to process and authenticate a given transaction between a buyer and a seller on the seller's website, determines whether (1) the transaction consummation completion identifier it receives from the seller comprises the transaction-specific buyer acceptance identifier

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(*e.g.*, the Shopify Pay verification code) and (2) it recognizes the seller identification it receives from the seller.

[7c] for the communication wherein the transaction consummation completion identifier comprises the transaction-specific buyer acceptance identifier, and the seller identification comprises the identification of a seller recognized by the Internet-based computer system, charge an account associated with the buyer for an amount comprising: said transaction amount, or an amount associated with said item identifier. If the Accused e-Commerce Platform determines that the identifiers match, it confirms that the buyer has authorized the particular transaction and charges the transaction amount to the buyer's account. For example, once the buyer inputs the Shopify Pay verification code that was sent to him via text message and the Accused e-Commerce Platform confirms she input the correct code, only then can the buyer's credit card be charged and completion of the transaction confirmed.

64.   Shopify has had actual knowledge of Boom's rights in the '084 patent and details of Shopify's infringement of the '084 patent based on at least the filing of this Complaint and, based on that knowledge, is also indirectly infringing the '084 patent.

65.   Shopify makes, uses, imports, offers for sale, and/or sells the Accused e-Commerce Platform with knowledge of or willful blindness to the fact that its actions will induce Shopify's customers to infringe the '084 patent by implementing the Accused e-Commerce Platform (which employs the Accused Payment Processor Platform) on their e-commerce websites, and with specific intent to encourage such infringement.

66.   Shopify actively and knowingly induces its customers (merchants who use the Accused e-Commerce Platform to sell goods and services) to infringe the '084 patent by publishing information promoting the Shopify Pay feature of the Accused e-Commerce Platform and its use in an infringing manner. For example, on its website, Shopify provides screenshots demonstrating the features and functionality of Shopify Pay and explains that it is a fast, convenient, and secure payment method. *See, e.g.*, https://pay.shopify.com/. In its Help Center for its customers, Shopify further publishes a manual explaining how Shopify Pay increases convenience and security for buyers, and how to activate Shopify Pay on a customer's website.   *See, e.g.*,

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https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay. Shopify boasts

that the Shopify Pay "checkout experience is an easy way to help customers buy and see your sales

grow." https://www.shopify.com/blog/accelerate-checkout-with-shopify-pay.

67.   As the direct and proximate result of Shopify's conduct, Boom has suffered and, if

Shopify's conduct is not stopped, will continue to suffer severe competitive harm, irreparable

injury, and significant damages, in an amount to be proven at trial. Because Boom's remedy at

law is inadequate, Boom seeks, in addition to damages, preliminary and permanent injunctive

relief. Boom's business operates in a competitive market and will continue suffering irreparable

harm absent injunctive relief.

68.   Boom is entitled to injunctive relief and damages of no less than a reasonable

royalty in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.

69.   Shopify's infringement of the '084 patent is exceptional and entitles Boom to

attorneys' fees and costs under 35 U.S.C. § 285.

THIRD CAUSE OF ACTION

Infringement of Patent No. 9,235,857 by Stripe

70.   Boom incorporates the foregoing paragraphs as though fully set forth herein.

71.   Stripe has directly infringed, and continues to directly infringe, at least claim 7 of

the '857 patent pursuant to 35 U.S.C. § 271, by making, using, selling, offering to sell, and/or

importing within the United States, without authority, the Accused Payment Processor Platform.

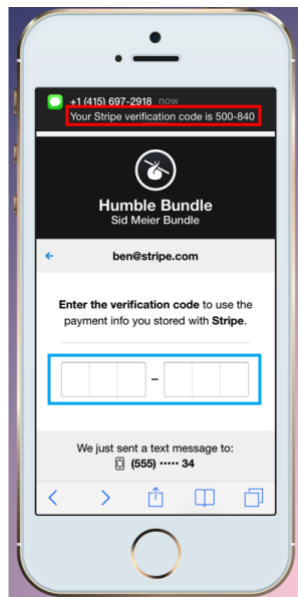72.   Set forth below (with claim language in italics) is an exemplary and non-limiting

description of infringement of claim 7 of the '857 patent in connection with the Accused Payment

Processor Platform. Boom reserves the right to modify this description, including, for example,

on the basis of information about the Accused Payment Processor Platform that it obtains during

discovery:

Claim 7

7. A computer system comprising a buyer computer device, an at least a first point-of-sale

computer device, and an at least a first processing computer device, said computer system further

comprising: To the extent the preamble is limiting, the Accused Payment Processor Platform is a

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computer system comprising a buyer computer device (*e.g.*, the buyer's mobile phone), an at least a first point-of-sale computer device (*e.g.*, one of the seller's computer devices), and an at least a first processing computer device (*e.g.*, one of Stripe's computer devices).

[7a] *executable computer program instructions that are operably installed on said buyer computer device, said executable computer program instructions instructing said buyer computer device to receive a transaction-specific identifier and transmit said transaction-specific identifier to a point-of-sale computer device;* The buyer's mobile phone necessarily has executable program instructions instructing it to receive a transaction-specific identifier because it is able to receive the Stripe verification code by text message (red box in image below) and because it provides a field for the mobile phone to receive the transaction-specific identifier from a buyer entering the transaction-specific identifier (blue box in image below):

See, e.g., https://stripe.com/us/payments/checkout. The buyer's mobile phone also necessarily has executable program instructions instructing it to transmit the transaction-specific identifier to a point-of-sale computer device because it is able to send the Stripe verification code to one of the seller's computer devices once the buyer inputs the code into the seller's website:

COMPLAINT
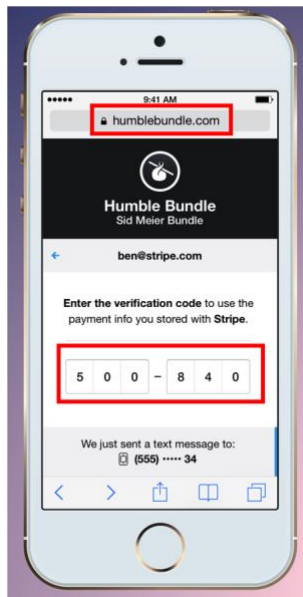
See id.; *see also id.* (explaining that Stripe's payment flow code is embedded into the seller's own website).

[7b] *prior to a sale of an at least one item by a particular seller to a particular buyer, said at least a first processing computer device programmed to receive a buyer request by said particular buyer transmitted by said buyer computer device for said particular buyer to be able to purchase at least one item featured for sale by said particular seller recognized by said computer system, and in response to said buyer request, generate a transaction-specific identifier, and make said transaction-specific identifier available to said buyer computer device for a particular purchase transaction regarding at least one item to be sold by the particular seller;* The Accused Payment Processor Platform has at least one processing computer device programmed to receive a buyer request to purchase an item for sale by a seller, and to generate a transaction-specific identifier (*e.g.*, the Stripe verification code) in response to the buyer request. The Accused Payment Processor Platform then makes the code available to the buyer computer device via text message.

[7c] *said at least a first processing computer device further programmed to store in a computer-accessible memory a record comprising a relationship between said transaction-specific identifier, a buyer-specific identifier, and a seller-specific identifier;* In order to be able to text the Stripe verification code to the buyer, the Accused Payment Processor Platform necessarily stores that code (*e.g.*, the transaction-specific identifier) in computer-accessible

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memory. The Accused Payment Processor Platform also stores a <u>buyer-specific identifier</u>, as a repeat buyer need not reinput his mobile telephone number before the Stripe verification code is texted to him. *See* https://stripe.com/docs/checkout ("Checkout securely accepts your customer's payment details and directly passes them to Stripe's servers."). The Accused Payment Processor Platform further stores a <u>seller-specific identifier</u>, as Stripe is able to confirm purchases on the seller's website. In addition, Stripe's website indicates that a seller's publishable API key is used to identify the seller's account with Stripe. https://stripe.com/docs/keys. Finally, the Accused Payment Processor Platform also necessarily stores the <u>relationship</u> between the transaction-specific identifier, the buyer-specific identifier, and the seller-specific identifier, as the Accused Payment Processor Platform generates the transaction-specific identifier and texts it to the buyer so that the buyer can complete a purchase on the seller's website.
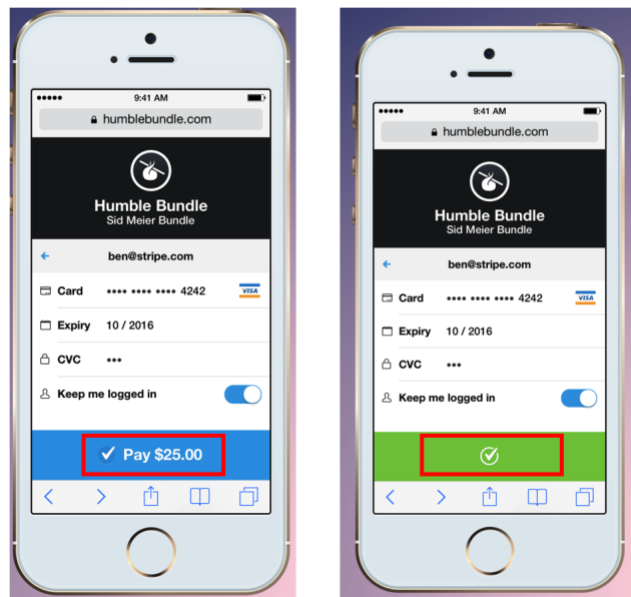
[7d] *said executable program instructions instructing said buyer computer device to provide said transaction-specific identifier to a first point-of-sale computer device of said at least a first point-of-sale computer device;* The buyer computer device necessarily has executable program instructions to provide the transaction-specific identifier to a point-of-sale computer device, as the buyer uses his computer device to input the Stripe verification code on the seller's website.

[7e] *said at least a first processing computer device programmed to receive from said first point-of-sale computer device an identifier of the transaction, an identifier of the buyer, and an identifier of the seller;* The Accused Payment Processor Platform necessarily has a computer device that receives identifiers for the transaction, buyer, and seller from a point-of-sale (seller) computer device, as that information is needed for the Accused Payment Processor Platform to process and authenticate transactions between a buyer and a seller on the seller's website.

[7f] *said at least a first processing computer device further programmed to compare the identifier of the transaction, the identifier of the buyer and the identifier of the seller with said transaction-specific identifier, said buyer-specific identifier and said seller-specific identifier; and* The Accused Payment Processor Platform has a computer device that compares the identifiers of the transaction, buyer, and seller with the transaction-specific identifier (the Stripe verification

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1   code), the buyer-specific identifier, and the seller-specific identifier to process and authenticate a

2   given transaction between a buyer and a seller on the seller's website.

3   [7g] *if said identifier of the transaction matches the transaction-specific identifier, and said*

4   *identifier of the buyer matches the buyer-specific identifier, and said identifier of the seller matches*

5   *the seller-specific identifier, then said at least a first processing computer device further*

6   *programmed to confirm that the buyer has authorized the particular purchase transaction.* If the

7   Accused Payment Processor Platform determines that the identifiers match, it confirms that the

8   buyer has authorized the particular transaction. For example, once the buyer inputs the Stripe

9   verification code that was sent to him via text message and the Accused Payment Processor

10 Platform confirms he input the correct code, only then is the buyer able to request his card be

11 charged for the purchase amount (left image below). After he confirms the amount to be charged

12 (by tapping on "Pay $25.00"), he receives confirmation that the transaction has been completed

13 (the green checkmark in the right image below).

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24   73.   As set forth in the Factual Allegations of this Complaint, Stripe's infringement of

25 the '857 patent has been and continues to be wanton, deliberate, egregious, and willful. Prior to

26 the introduction of the Accused Payment Processor Platform, Stripe employees engaged in

27 technical and business discussions with Boom and Mr. Bogaard, were aware of Boom's patents,

28 and expressed interest in learning more about the applications of Boom's technology. Rather than

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collaborating, Stripe copied the patented technology without permission from Boom or Mr. Bogaard, and launched its own competing product with either knowledge of its infringement or willful blindness of the same.

74.   For at least the foregoing and other reasons set forth herein, Boom is entitled to enhanced damages for Stripe's infringement of the '857 patent in accordance with 35 U.S.C. § 284.

75.   As described in the Factual Allegations in this Complaint, Stripe has also had knowledge of or been willfully blind to its infringement of the '857 patent such that based on that knowledge or willful blindness, it has also indirectly infringed the '857 patent since its issuance date (January 12, 2016).

76.   Stripe has also had actual knowledge of Boom's rights in the '857 patent and details of Stripe's infringement of the '857 patent based on at least the filing of this Complaint and, based on that knowledge, is also indirectly infringing the '857 patent.

77.   Stripe makes, uses, imports, offers for sale, and/or sells the Accused Payment Processor Platform with knowledge of or willful blindness to the fact that its actions will induce Stripe's customers to infringe the '857 patent by implementing the Accused Payment Processor Platform on their e-commerce websites, and with specific intent to encourage such infringement.

78.   Stripe actively and knowingly induces its customers (such as Shopify, other e-commerce platform providers, and online merchants) to infringe the '857 patent by publishing information promoting the Accused Payment Processor Platform and its use in an infringing manner. For example, Stripe touts its Checkout product as "[t]he easiest payment flow on web and mobile," explains that it is embeddable within a customer's own website, and provides a video demonstrating its features and functionality. *See* https://stripe.com/us/payments/checkout. Stripe further publishes technical information concerning how integration of the Accused Payment Processor Platform on a customer website works. *See* https://stripe.com/docs/checkout.

79.   As the direct and proximate result of Stripe's conduct, Boom has suffered and, if Stripe's conduct is not stopped, will continue to suffer severe competitive harm, irreparable injury, and significant damages, in an amount to be proven at trial. Because Boom's remedy at law is inadequate, Boom seeks, in addition to damages, preliminary and permanent injunctive relief.

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Boom's business operates in a competitive market and will continue suffering irreparable harm absent injunctive relief.

80.   Boom is entitled to injunctive relief and damages of no less than a reasonable royalty in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.

81.   Stripe's infringement of the '857 patent is exceptional and entitles Boom to attorneys' fees and costs under 35 U.S.C. § 285.

FOURTH CAUSE OF ACTION

Infringement of Patent No. 9,235,857 by Shopify

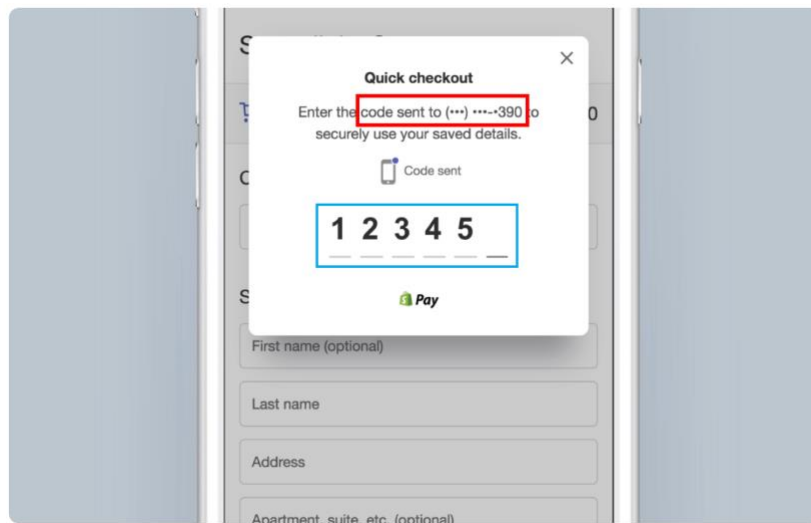82.   Boom incorporates the foregoing paragraphs as though fully set forth herein.

83.   Shopify has directly infringed, and continues to directly infringe, at least claim 7 of the '857 patent pursuant to 35 U.S.C. § 271, by making, using, selling, offering to sell, and/or importing within the United States, without authority, the Accused e-Commerce Platform.

84.   Set forth below (with claim language in italics) is an exemplary and non-limiting description of infringement of claim 7 of the '857 patent in connection with Shopify's Accused e-Commerce Platform. In addition, on information and belief, at least as early as April 20, 2017, the Shopify Pay feature on the Accused e-Commerce Platform was and continues to be powered by Stripe's Accused Payment Processor Platform. *See supra* ¶ 45. Boom therefore incorporates the mapping of claim 7 of the '857 patent in paragraph 72 by reference. Boom reserves the right to modify this description, including, for example, on the basis of information about the Accused Payment Processor Platform and the Accused e-Commerce Platform that it obtains during discovery:

Claim 7

7. A computer system comprising a buyer computer device, an at least a first point-of-sale computer device, and an at least a first processing computer device, said computer system further comprising: To the extent the preamble is limiting, the Accused e-Commerce Platform a computer system comprising a buyer computer device (*e.g.*, the buyer's mobile phone), an at least a first point-of-sale computer device (*e.g.*, one of the seller's computer devices), and an at least a first processing computer device (*e.g.*, one of Shopify's computer devices).

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[7a] *executable computer program instructions that are operably installed on said buyer computer device, said executable computer program instructions instructing said buyer computer device to receive a transaction-specific identifier and transmit said transaction-specific identifier to a point-of-sale computer device;* The buyer's mobile phone necessarily has executable program instructions instructing it to receive a transaction-specific identifier because it is able to receive the Shopify Pay's verification code by text message (red box in image below) and because it provides a field for the mobile phone to receive the transaction-specific identifier from a buyer entering the transaction-specific identifier (blue box in image below):

Id.; https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay; *see also* https://www.shopify.com/blog/accelerate-checkout-with-shopify-pay ("After entering their shipping and payment details, shoppers can opt-in to have their information saved with Shopify Pay. Next time they check out at any store powered by Shopify, they'll simply type in their email address, followed by a verification code they receive via SMS."). The buyer's mobile phone also necessarily has executable program instructions instructing it to transmit the transaction-specific identifier to a point-of-sale computer device because it is able to send the Shopify Pay verification code to one of the seller's computer devices once the buyer inputs the code into the seller's website, as illustrated above.

[7b] *prior to a sale of an at least one item by a particular seller to a particular buyer, said at least a first processing computer device programmed to receive a buyer request by said*

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particular buyer transmitted by said buyer computer device for said particular buyer to be able to purchase at least one item featured for sale by said particular seller recognized by said computer system, and in response to said buyer request, generate a transaction-specific identifier, and make said transaction-specific identifier available to said buyer computer device for a particular purchase transaction regarding at least one item to be sold by the particular seller; The Accused e-Commerce Platform has at least one processing computer device programmed to receive a buyer request to purchase an item for sale by a seller, and to generate a transaction-specific identifier (*e.g*., the verification code) in response to the buyer request. The Accused e-Commerce Platform then makes the code available to the buyer computer device via text message.

[7c] *said at least a first processing computer device further programmed to store in a computer-accessible memory a record comprising a relationship between said transaction-specific identifier, a buyer-specific identifier, and a seller-specific identifier;* In order to be able to text the Shopify Pay verification code to the buyer, the Accused e-Commerce Platform necessarily stores that code (*e.g*., the transaction-specific identifier) in computer-accessible memory. The Accused e-Commerce Platform also stores a buyer-specific identifier, as a repeat buyer need not reinput her mobile telephone number before the Shopify verification code is texted to her. *See* https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay ("The customer's shipping and billing information is securely stored on Shopify's PCI compliant servers ...."). The Accused e-Commerce Platform further stores a seller-specific identifier, as the Accused e-Commerce Platform is able to confirm purchases on the seller's website. Finally, the Accused e-Commerce Platform also necessarily stores the relationship between the transaction-specific identifier, the buyer-specific identifier, and the seller-specific identifier, as the Accused e-Commerce Platform generates the transaction-specific identifier and texts it to the buyer so that the buyer can complete a purchase on the seller's website.

[7d] *said executable program instructions instructing said buyer computer device to provide said transaction-specific identifier to a first point-of-sale computer device of said at least a first point-of-sale computer device;* The buyer computer device necessarily has executable program instructions to provide the transaction-specific identifier to a point-of-sale computer

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device, as the buyer uses his computer device to input the Shopify Pay verification code on the seller's website.

[7e] *said at least a first processing computer device programmed to receive from said first point-of-sale computer device an identifier of the transaction, an identifier of the buyer, and an identifier of the seller;* The Accused e-Commerce Platform necessarily has a computer device that receives identifiers for the transaction, buyer, and seller from a point-of-sale (seller) computer device, as that information is needed for the Accused e-Commerce Platform to process and authenticate transactions between a buyer and a seller on the seller's website.

[7f] *said at least a first processing computer device further programmed to compare the identifier of the transaction, the identifier of the buyer and the identifier of the seller with said transaction-specific identifier, said buyer-specific identifier and said seller-specific identifier; and* The Accused e-Commerce Platform has a computer device that compares the identifiers of the transaction, buyer, and seller with the transaction-specific identifier (the Shopify Pay verification code), the buyer-specific identifier, and the seller-specific identifier to process and authenticate a given transaction between a buyer and a seller on the seller's website.

[7g] *if said identifier of the transaction matches the transaction-specific identifier, and said identifier of the buyer matches the buyer-specific identifier, and said identifier of the seller matches the seller-specific identifier, then said at least a first processing computer device further programmed to confirm that the buyer has authorized the particular purchase transaction.* If the Accused e-Commerce Platform determines that the identifiers match, it confirms that the buyer has authorized the particular transaction. For example, once the buyer inputs the Shopify Pay verification code that was sent to him via text message and the Accused e-Commerce Platform confirms she input the correct code, only then can the buyer's credit card be charged and completion of the transaction confirmed.

85.   Shopify has had actual knowledge of Boom's rights in the '857 patent and details of Shopify's infringement of the '857 patent based on at least the filing of this Complaint and, based on that knowledge, is also indirectly infringing the '857 patent.

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1   86.   Shopify makes, uses, imports, offers for sale, and/or sells the Accused e-Commerce

2   Platform with knowledge of or willful blindness to the fact that its actions will induce Shopify's

3   customers to infringe the '857 patent by implementing the Accused e-Commerce Platform (which

4   employs the Accused Payment Processor Platform) on their e-commerce websites, and with

5   specific intent to encourage such infringement.

6   87.   Shopify actively and knowingly induces its customers (merchants who use the

7   Accused e-Commerce Platform to sell goods and services) to infringe the '857 patent by publishing

8   information promoting the Shopify Pay feature of the Accused e-Commerce Platform and its use

9   in an infringing manner. For example, on its website, Shopify provides screenshots demonstrating

10   the features and functionality of Shopify Pay and explains that it is a fast, convenient, and secure

11   payment method. *See* https://pay.shopify.com/. In its Help Center for its customers, Shopify

12   further publishes a manual explaining how Shopify Pay increases convenience and security for

13   buyers, and how to activate Shopify Pay on a customer's website. *See*

14   https://help.shopify.com/en/manual/payments/accelerated-checkouts/shopify-pay. Shopify boasts

15   that the Shopify Pay "checkout experience is an easy way to help customers buy and see your sales

16   grow." https://www.shopify.com/blog/accelerate-checkout-with-shopify-pay.

17   88.   As the direct and proximate result of Shopify's conduct, Boom has suffered and, if

18   Shopify's conduct is not stopped, will continue to suffer severe competitive harm, irreparable

19   injury, and significant damages, in an amount to be proven at trial. Because Boom's remedy at

20   law is inadequate, Boom seeks, in addition to damages, preliminary and permanent injunctive

21   relief. Boom's business operates in a competitive market and will continue suffering irreparable

22   harm absent injunctive relief.

23   89.   Boom is entitled to injunctive relief and damages of no less than a reasonable

24   royalty in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.

25   90.   Shopify's infringement of the '857 patent is exceptional and entitles Boom to

26   attorneys' fees and costs under 35 U.S.C. § 285.

27   **PRAYER FOR RELIEF**

28   WHEREFORE, Plaintiff Boom respectfully requests the following relief:

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A.   Judgment in Boom's favor and against Stripe and Shopify on all causes of action alleged herein;

B.   An award of damages to Boom in an amount to be further proven at trial;

C.   Preliminary and permanent injunctive relief against Stripe and Shopify;

D.   A finding that this case is exceptional under 35 U.S.C. § 285 and that Boom should be awarded its attorneys' fees;

E.   An award of enhanced damages to Boom as a result of Stripe's willful infringement;

F.   An award of prejudgment and post-judgment interest, costs and other expenses; and

G.   Such other and further relief as the Court may deem to be just and proper.

DEMAND FOR A JURY TRIAL

Boom hereby demands a jury trial for all causes of action, claims, or issues in this action that are triable as a matter of right to a jury.

DATED: February 1, 2019   Respectfully submitted,

RUSS, AUGUST & KABAT

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